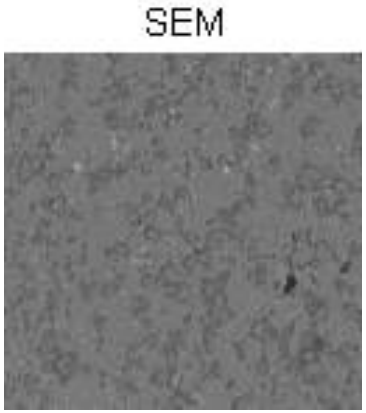

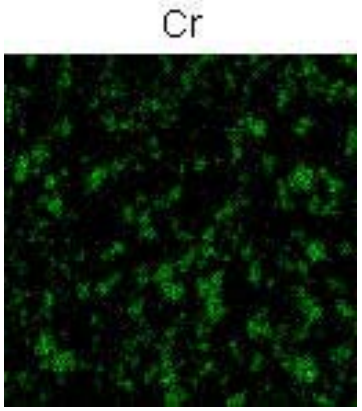

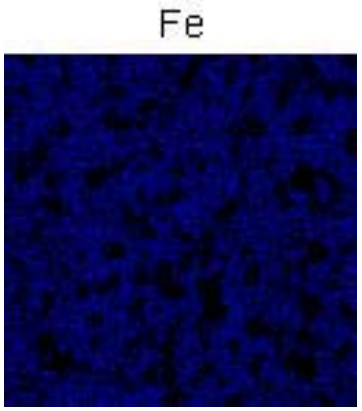

CAREER: Coatings for High Temperature Alloys

Janet M. Hampikian
Georgia Institute of Technology
DMR-9624927

Education:

One Ph.D. candidate, Ms. Monique McIntosh, and one undergraduate, Mr. Simon Dunham, participated in this work. Fe-Cr alloys that are produced as a result of the reduction reaction of extruded oxide pastes represent a novel synthesis route enabling complex structures such as honeycombs to be generated, important for lightweight load-bearing structures. This research is focused on the kinetics of the reduction processes. SEM and EDX compositional maps of iron and chromium from an extruded oxide strip are shown that was reduced in flowing hydrogen up to 900^{o}C.

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Outreach:

Junior Girl Scout Troop 527, and troop leader, Dr. Hampikian (not shown), of the Northwest Council of Girl Scouts, Decatur Georgia, view nanomaterials using transmission electron microscopy, Oct. 3, 2003.

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Outreach:

Ms. McIntosh, below, taught Materials Science to high school seniors in St. Augustine, Trinidad, W.I. (summer, 2003).